

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01059

**A. CLASSIFICATION OF SUBJECT MATTER**

Int. Cl. 7: G06N 1/00, B82B 3/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI, JAPIO Keywords: quantum bit, qubit, quantum comput; charge, electron, hole, ion, anion, coulomb, double well, quantum dot

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	Dzurak A.S. et al, "Charge-based silicon quantum computer architectures using controlled single-ion implantation", cond-mat/0306265, 11 June 2003 (online) (retrieved on 16 October 2003). Retrieved from the Internet: <URL: <a href="http://lanl.gov/abs/cond-mat/0306265">http://lanl.gov/abs/cond-mat/0306265</a> >. Whole document	1-27
A	US 6369404 B (KANE) 9 April 2002 Whole document	1-27
A	Patent Abstracts of Japan, JP 2000-068495 A (INST OF PHYSICAL AND CHEMICAL RES) 3 March 2000 Abstract	1-27

☐

Further documents are listed in the continuation of Box C

☒

See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

20 October 2003

Date of mailing of the international search report

27 OCT 2003

Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
E-mail address: pct@ipaustralia.gov.au  
Facsimile No. (02) 6285 3929

Authorized officer

MICHAEL HALL

Telephone No : (02) 6283 2474

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
**PCT/AU03/01059**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
US	6369404	AU	91462/98	AU	92456/98	CA	2304045
		CA	2304185	EP	1016216	EP	1025449
		US	6472681	WO	9914614	WO	9914858
		ZA	9808528	ZA	9808530		
JP	2000068495	NONE					
END OF ANNEX							